

ARM64_ubuntu22_Humble_notes

start of next generation ROS2 magni software

Working on Rpi4 arm64 Ubuntu 22.04 ROS Humble

Started with this server image

https://github.com/ros-realtime/ros-realtime-rpi4-image/releases/tag/22.04.3_v5.15.98-rt62-raspi_ros2_humble

about 1.1 gig expands to 4.3gig on sd with disk writer.

on initial boot, change password

sudo apt install netplan, net-tools slim ubuntu-desktop mlocate

prefer to use slim desktop manager - edit /etc/slim.conf to avoid login screen.

in config.txt in boot firmware camera_detect=0 !!!!! for Picam to make ffmpeg video0 to work but set camera_auto_detect=1 for libcamera support.

install libcamera

git clone <https://git.libcamera.org/libcamera/libcamera.git> meson build sudo ninja -C build install

may need 'some' dependencies

sudo apt install build-essential meson libyaml-dev python3-yaml python3-ply python3-jinja2 libssl-dev openssl git

on ros2 side add colcon and ros2_ws build space

git clone https://github.com/christianrauch/camera_ros src

test if camera detected may need v4l-utils

v4l2-ctl --list-devices

..... need to see unicam for libcamera to work

unicam (platform:fe801000.csi): /dev/video0 /dev/video1 /dev/media0 file

ros2 run camera_ros camera_node --ros-args -p width:=640 -p height:=480 will launch with warning about no camera config file

need these ros2 plugins/nodes to view image

sudo apt-get install ros-humble-compressed-image-transport sudo apt install ros-humble-rqt*

tada!